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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,698	08/29/2003	David S. Goldberg	LEDGE-002	9205
34111	7590	03/16/2006	EXAMINER	
STEPHEN J. LEWELLYN 933 OLEANDER WAY SOUTH SUITE 3 SOUTH PASADENA, FL 33707			GUIDOTTI, LAURA COLE	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/651,698

Applicant(s)

GOLDBERG ET AL.

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,41-43 and 46-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,41-43 and 46-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03 January 2006 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 41-43, 47-48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordin, USPN 5,804,274 in view of <http://www.the-cloth.com/ourmicro.shtml> (herein referred to as "the-cloth website").

Nordin discloses the claimed invention including a mop head comprising a mop head coupling element (1; the base fabric), at least two cords that are separate and non-woven (2), each of the at least two cords comprising a plurality of filaments twisted together in a bundle (Column 2 Lines 57-65, particularly Lines 64-65), each of the plurality of filaments are of a denier from about 0.02 to about 0.99 (Column 2 Lines 57-65; Column 3 Lines 64-67, 0.3 Dtex, 0.3 Dtex converts to 0.27 denier), each of the at

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least two cords includes at least one end (see Figures) and each of the at least two cords are bundled together at their ends (they are bundled by a base fabric, Column 2 Lines 33-42) and are secured to the mop head coupling element (Column 4 Lines 6-16). The filament has a combination of polyester and nylon, specifically that it is about 70 to 90 percent polyester and about 10 to about 30 percent nylon (Column 3 Lines 64-67). Each cord has two ends secured to the mop head coupling element to form each of the cords into a loop (see Figures) and there appears to be about 2 to 500 cords secured to the coupling element (see Figures). There are about 1,000 to 50,000 filaments twisted to comprise each of the cords (Column 3 Lines 64-67; each of the cords "2" have a thickness of 330 Dtex and since each filament which forms the yarn 1s 0.3 Dtex, each cord is about 1,000 filaments.) Nordin does not include that a filament is a split filament that has a core member with a plurality of projections emanating from the core member and a wedge-shaped insert disposed between every other projection. Additionally, no weight has been given to a "precursor material" as the "precursor material" is developed in claim 51 as part of the extruding and treating process steps, and claimed method steps are not germane to the patentability in apparatus claims. Regarding product-by-process claims, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different

process.” In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).
MPEP 2113.

“The-cloth website” includes a cross section of a spilt micro fiber (left most picture on page 1) that illustrates a microfiber having a core member with a plurality of projections emanating therefrom and a wedge-shape insert disposed between every other projection. This fiber is used in a variety of fabrics, mops, and applications for cleaning and is 80% polyester and 20% nylon. The microfiber is durable and has a super absorbency.

It would have been obvious for one of ordinary skill in the art to substitute the filaments of Nordin for a split microfiber filament including a core member having a plurality of projections with wedge-shaped inserts disposed between every other projection, as “the-cloth website” teaches, in order to provide a microfiber filament that is advantageous to cleaning and is super absorbent.

3. Claims 1, 41-42, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 224 900 in view of <http://www.the-cloth.com/ourmicro.shtml> (herein referred to as “the-cloth website”).

EP 1 224 900 discloses the claimed invention including a mop head comprising a mop head coupling element (a “headpiece or band”, paragraph 6), at least two cords that are separate and non-interwoven (paragraph 6), each of the at least two cords comprising a plurality of filaments twisted together in a bundle (paragraph 8), each of the plurality of filaments are of a denier from about 0.02 to about 0.99 (paragraph 7 states that the filaments are “microfibres” and from the Applicants own specification in

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paragraph 2, a microfiber(re) must be less than 1 denier), each of the at least two cords includes at least one end (a cord must inherently have one end; paragraphs 10-11) and each of the at least two cords are bundled together at their ends (they are bundled by tangling or welding, claims 2 or 5) and are secured to the mop head coupling element (see claims). EP 1 224 900 does not include specific properties of the microfibre filaments. Additionally, no weight has been given to a “precursor material” as the “precursor material” is developed in claim 51 as part of the extruding and treating process steps, and claimed method steps are not germane to the patentability in apparatus claims. Regarding product-by-process claims, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). MPEP 2113.

“The-cloth website” discloses all elements above.

It would have been obvious for one of ordinary skill in the art to substitute the filaments of EP 1 224 900 for a split microfiber filament including a core member having a plurality of projections with wedge-shaped inserts disposed between every other projection comprising 80% polyester and 20% nylon, as “the-cloth website” teaches, in order to provide a microfiber element that is advantageous for cleaning and is super absorbent.

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4. Claims 1, 41-43, 47-48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordin, USPN 5,804,274 in view of Dugan, USPN 6,465,095.

Nordin discloses all elements above

Dugan discloses a type of yarn incorporating fibers and twisting at least two fibers or filaments together (Column 15 Lines 62-67) wherein the filaments are less than 1 denier, specifically 0.5 denier (Column 7 Lines 20-24). The filament comprises a combination of polyester and nylon material (Column 1 Lines 17-21; Column 2 Line 66 to Column 3 Line 10). The filaments are split (Abstract) to comprise a core member (central portion of "8" in Figure 1C), a plurality of projections (the portion of "8" that extends from the center of Figure 1C), and a wedge-shaped insert disposed between every other projection (6; Figure 1C; see additionally Column 7 Line 52 to Column 8 Line 18). The individual filaments are split or non-split (Column 16 Lines 20-23). The split filaments have good barrier properties and a high fiber surface area (Column 16 Lines 24-27).

It would have been obvious for one of ordinary skill in the art to substitute the filaments of Nordin for split microfiber filaments including a core member having a plurality of projections with wedge-shaped inserts disposed between every other projection, as Dugan teaches, in order to provide a microfiber filament that is advantageous to cleaning and to provide microfiber filaments that have a high fiber surface area.

5. Claims 46, 49, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordin, USPN 5,804,274 and <http://www.the->

cloth.com/ourmicro.shtml (herein referred to as "the-cloth website") as applied to claims 1, 48, and 51 further in view of Wooley, USPN 6,131,731.

Nordin and "the-cloth website" disclose all elements mentioned above, however neither disclose that the *finished product* of two cords includes a solution of an antibacterial solution, fungicide, cleaning solution, deodorant, perfume, or coloring agent.

Wooley discloses a mop made of cords (210) having twisted filaments (310) and further includes impregnating the mop with a cleaning solution such as a germicidal agent (Column 5 Lines 56-60) so that medical areas may be cleaned effectively and efficiently (Column 1 Lines 5-9).

It would have been obvious for one of ordinary skill in the art to modify the mop head of Nordin and "the-cloth website" to have a cleaning solution, as Wooley teaches, in order to quickly, effectively, and efficiently clean and kill germs from an area.

Applicants Arguments

6. In the response filed 08 December 2005, the Applicant contends that:

A. The **Declaration of Prior Invention Under Rule 131** establishes a reduction to practice of the invention at a date prior to May 6, 2003. May 6, 2003 is the annotated printing date of <http://www.the-cloth.com/ourmicro.shtml>.

B. Nordin, EP 1224900, and EP 1362544 do not disclose the use of a yarn comprising filaments that are split. Nordin does not disclose the use of a yarn comprising filaments those are split and comprise a core member, a plurality of projections emanating from the core member, and a wedge-shaped insert disposed

between every other projection. "The-cloth website" does not disclose a mop having at least two cords that are separate and non-interwoven and are each of a plurality of filaments comprising the cross section of a split micro fiber. It is not permissible to use hindsight to reconstruct elements of the claim. Websites are transient in nature.

C. Bolton discloses a textile sheet and the cords are interwoven.

D. Dugan does not disclose the use of bicomponent fibers in any application other than making textile fabrics. Dugan does not include wedge shaped inserts positioned between separate projections that emanate from a core member such that spaces are present between the wedge shaped insert and the projections.

Response to Arguments

7. Applicant's arguments A-B and D filed 08 December 2005 have been fully considered but they are not persuasive.

A. May 6, 2003 is the annotated printing date of <http://www.the-cloth.com/ourmicro.shtml> ("the-cloth-website"), however the *copyright* date of "the-cloth website" is actually 2001 (see last page). Further, the Examiner implemented an internet archival service ("Wayback Machine") which displays that beginning with the web posting of December 12, 2001 that the picture showing the cross section of a fiber was published on "the-cloth website". Included on the attached PTO-892 is the printout of the version of "the-cloth website" that was posted on the Internet on December 12, 2001. According to the MPEP 2128, prior art disclosures on the Internet or on an on-line database are considered to be publicly available as of the date the item was

publicly posted. Therefore, the **Declaration of Prior Invention Under Rule 131** is not sufficient in removing “the-cloth website” as an available reference.

B. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Further, it would have been obvious for one of ordinary skill in the art to substitute the filaments of Nordin or EP 1224900 for a split microfiber filament including a core member having a plurality of projections with wedge-shaped inserts disposed between every other projection, as “the-cloth website” teaches, in order to provide a microfiber filament that is advantageous to cleaning and is super absorbent.

D. As Applicant contends, Dugan does disclose the use of the multicomponent fibers in the use of textile fabrics, however Dugan also discloses using separated microfilaments in forming a yarn (Column 16 Lines 21-23). Dugan does in fact include wedge shaped inserts (portions marked as “6” in Figure 1C) positioned between separate projections (the portion of “8” that extends from the center of Figure 1C) that emanate from a core member (central portion “8” in Figure 1C). Although these portions “6” and “8” are referred to as a matrix and segments, they are in fact microfilaments that separate after a splitting process (Column 7 Lines 31-50) such that

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spaces are present between the wedge shaped inserts and projections (further exemplified in Figure 3A; Column 7 Lines 52-61). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the wedge shaped inserts are positioned between separate projections which emanate from a core member *such that spaces are present between the wedge shaped inserts and projections*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. Applicant's argument C, filed 08 December 2005, with respect to Bolton has been fully considered and is persuasive. The rejection of Bolton has been withdrawn.

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER